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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/507,466 02/22/00 BROWN

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EXAMINER

MM91/0201

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ART UNIT

PAPER NUMBER

2872

DATE MAILED:

02/01/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/507,466

Applicant(s)

David R. Brown

Examiner
Thong Q. Nguyen

Group Art Unit
2872



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire THREE month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-18 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 12-18 is/are allowed.

☒ Claim(s) 1-11 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Drawings

This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Specification

1. A substitute specification with claims is required pursuant to 37 CFR 1.125(a) because each page of the present specification and claim does not meet the requirement of 37 CFR 1.52(b) which requires a top margin of at least 2.0 cm (3/4 inch).

A substitute specification filed under 37 CFR 1.125(a) must only contain subject matter from the original specification and any previously entered amendment under 37 CFR 1.121. If the substitute specification contains additional subject matter not of record, the substitute specification must be filed under 37 CFR 1.125(b) and must be accompanied by: 1) a statement that the substitute specification contains no new matter; and 2) a marked-up copy showing the amendments to be made via the substitute specification relative to the specification at the time the substitute specification is filed.

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

3. The disclosure is objected to because of the following informalities: a) Page 4: line 15, "Fig. 3" should be changed to --FIG. 2--. Applicant should note that the figure 3 is a view taken

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along line 3-3 of figure 2, not figure 3; b) Page 5 (lines 19, 24 and 28), Page 6 (line 2), Page 7 (lines 4, 8, 9 and 31), Page 8 (lines 2 and 4), and Page 9 (lines 6 and 30), "22-44" should be changed to --22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44-- (see page 5 (lines 14-15)). Applicant should note that since the specification does not use references such as 23, 25, 27, 29, 31, 33, 35, 37, 39, 41 and 43; therefore, the use of the set of number "22-44" as stated is improper; c) Page 6 (lines 18, 19, 21, 23, and 26), "70-84" should be changed to --70, 72, 74, 76, 78, 80, 82, 84--. Applicant should note that since the specification does not use references such as 71, 73, 75, 77, 79, 81, 83; therefore, the use of the set of number "22-44" as stated is improper. There are still some grammatical and idiomatic errors in the specification. Applicant should carefully proofread the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 1 is indefinite because each of the features "the shape" (line 7, two occurrences) lacks a proper antecedent basis.

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b) The remaining claims are dependent upon the rejected base claim and thus inherit the deficiencies thereof.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-2, 5, 8-9, and 10, as best as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Tedesco (U.S. Patent No. 5,861,990).

Tedesco discloses an optical device for receiving light from a light source so that the light outputting from the device is a diffusing light. The device (102) comprises a light entrance surface (104) and an output/exit light surface (106) wherein a pattern of microwedged projections are formed. The microwedged projections have different physical shapes with respect to each other in a three-dimensional configuration so that a light beam emitting from a microwedged projection will direct/guide in an optical path which is different from the optical path of another beam passing through other microwedged projection. As such, light reflected from two adjacent microwedged projections will provide respectively non-adjacent portions of a pattern. See Tedesco, columns 3-4 and fig. 1, for example.

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2. Claims 1-2, 4, 7-10 and 11, as best as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Chahroudi (U.S. Patent No. 5,198,922).

Chahroudi discloses an optical device for receiving light from a light source so that the light reflected from the device is a diffusing reflected light. The device (10) comprises a first element (3) having a planar surface and a roughed surface, a shutter (1) having both roughed entrance and emitted surface, and a second element (2) having a planar surface and a roughed surface wherein the rough. The roughed surface of each elements (2,3) and the shutter (1) comprises a pattern of microwedged projections wherein light transmits through them will change the directions. The light when reflects from the shutter (1) will pass through the element (3) again and exited from the planer surface of the element (3). It is noted that the shutter (1) in the optical device acts as a light modifying element with respect to the characteristics of light entering the optical device. The microwedged projections have different physical shapes with respect to each other in a three-dimensional configuration so that a light beam emitting from a microwedged projection will direct/guide in an optical path which is different from the optical path of another beam passing through other microwedged projection. As such, light reflected from two adjacent microwedged projections will provide respectively non-adjacent portions of a pattern. See Chahroudi, columns 2-3 and fig. 2, for example.

3. Claims 1-3 as best as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Chahroudi (U.S. Patent No. 5,198,922).

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Chahroudi discloses an optical device for receiving light from a light source so that the light reflected from the device is a diffusing reflected light. The device (10) comprises a first element (3) having a planar surface and a roughed surface, a shutter (1) having both roughed entrance and emitted surface, and a second element (2) having a planar surface and a roughed surface wherein the rough. The roughed surface of the shutter (1) comprises a pattern of microwedged projections wherein light transmits through them will change the directions. The light when reflects from the shutter (1) will pass through the element (3) again and exited from the planer surface of the element (3). The microwedged projections have different physical shapes with respect to each other in a three-dimensional configuration so that a light beam reflected from a microwedged projection will follow an optical path which is different from the optical path of another beam reflected from another microwedged projections. See Chahroudi, columns 2-3 and fig. 2, for example.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tedesco in view of Hoch et al (U.S. Patent No. 6,002,520).

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The optical device as provided by Tedesco as described at columns 3-4 and shown in figure 1 meets all of the device as claimed in present claim 6 except the feature of a lens for performing a Fourier transform operation. However, the use of a diffusing element in a system having a light source, a lens and a diffusing element is clearly disclosed in the art as can be seen in the optical system provided by Hoch et al. See columns 2-5 and figs. 1-4. Thus, it would have been obvious to one skilled in the art at the time the invention was made to utilize/apply the diffusing device provided by Tedesco in an optical system having a lens disposed in front of the diffusing device as suggested by Hoch et al so that the lens will perform a Fourier transform operation of the light before it enters the diffusing element.

Allowable Subject Matter

1. Claims 12-16 are allowed over the cited art.
2. Since allowable subject matter has been indicated, applicant is encouraged to submit formal drawings in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.
3. The following is an examiner's statement of reasons for allowance:

The method of making an optical device is patentable with respect to the cited art, in particular, the U.S. Patent Nos. 5,198,922; 6,002,520; 5,861,990 and 6,163,405 by the limitations concerning the steps of dividing an angular pattern into a plurality of sub-angular regions and then

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generating an array of micro-wedges having different configurations in according to the determined micro-wedges configurations for directing light to the sub-angular regions.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

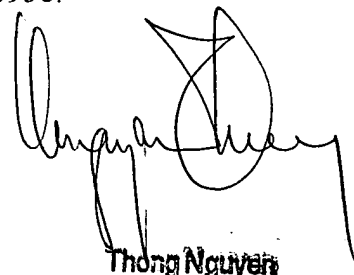
1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references are cited as of interest in that each discloses a diffusing device having a roughed pattern on a surface thereof.
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Exam. Nguyen whose telephone number is (703) 308-4814. The examiner can normally be reached on Monday to Thursday from 7:00 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou, can be reached on (703) 308-1687. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722 (or 7724).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Nguyen

01/26/01



Thong Nguyen
Primary Examiner